



Device Director™ Software

Installer/User Guide

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Technical Support Site

If you encounter any installation or operational issues with your product, check the pertinent section of this manual to see if the issue can be resolved by following outlined procedures. Visit <https://www.VertivCo.com/en-us/support/> for additional assistance.

TABLE OF CONTENTS

1 Installation	1
1.1 Start Up	1
2 Hardware Page	5
2.1 Search	5
2.2 Pagination	6
2.3 Columns	6
2.4 Add	6
2.5 Configure	11
2.5.1 Network configuration	11
2.5.2 User accounts	13
2.5.3 Localization	15
2.5.4 Email alerts	15
2.5.5 Remote syslog	16
2.5.6 Firmware update	18
2.5.7 Admin	18
2.5.8 Reboot/Reset	19
2.5.9 Refresh	20
2.5.10 Delete	20
2.6 CSV Import/Export	20
2.6.1 Adding Hardware with CSV Import	21
2.6.2 Updating Hardware with CSV Import	21
2.6.3 CSV Fields (Columns)	21
3 Job Status Page	25
Appendix A: Supported Products	27

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1 INSTALLATION

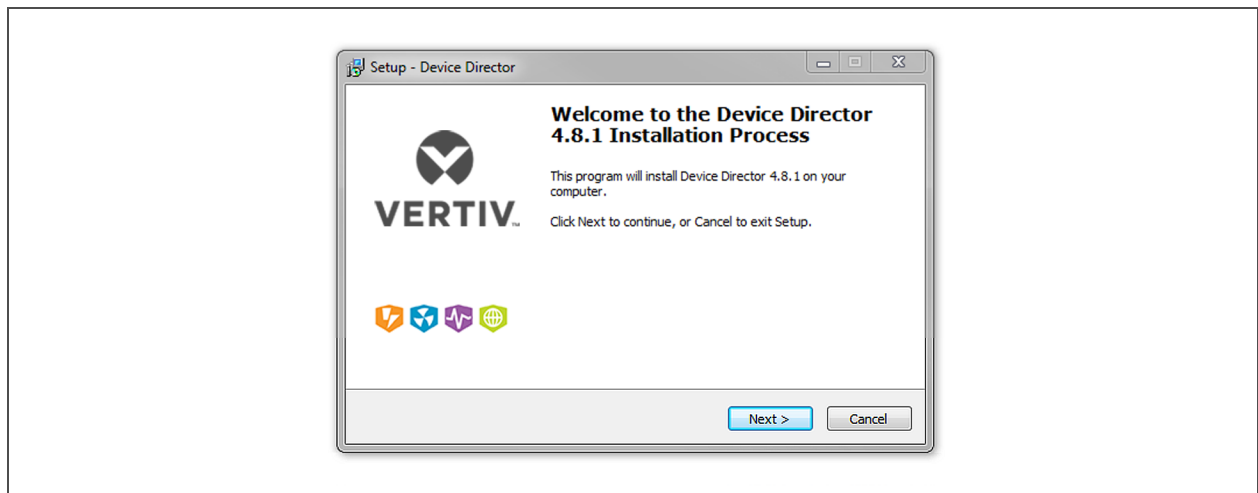
The Device Directors software is a convenient tool for commissioning new devices, firmware updates and bulk settings changes.

To install the software:

1. Click on the Device Director executable (for example, DeviceDirector-4.8.1_setup_x64.exe).
2. Follow the on screen prompts to accept the End User License Agreement (EULA) and click *Next*.
3. Accept or change the installation location and click *Next*.
4. Accept or change the shortcut location and click *Next*.
5. Select the checkbox to install the Start Menu or Desktop shortcuts and and click *Next*.
6. Click *Install - Finish*. Device Director is installed according to the settings chosen.

Figure 1.1 Device Director Install

Figure 1.2



1.1 Start Up

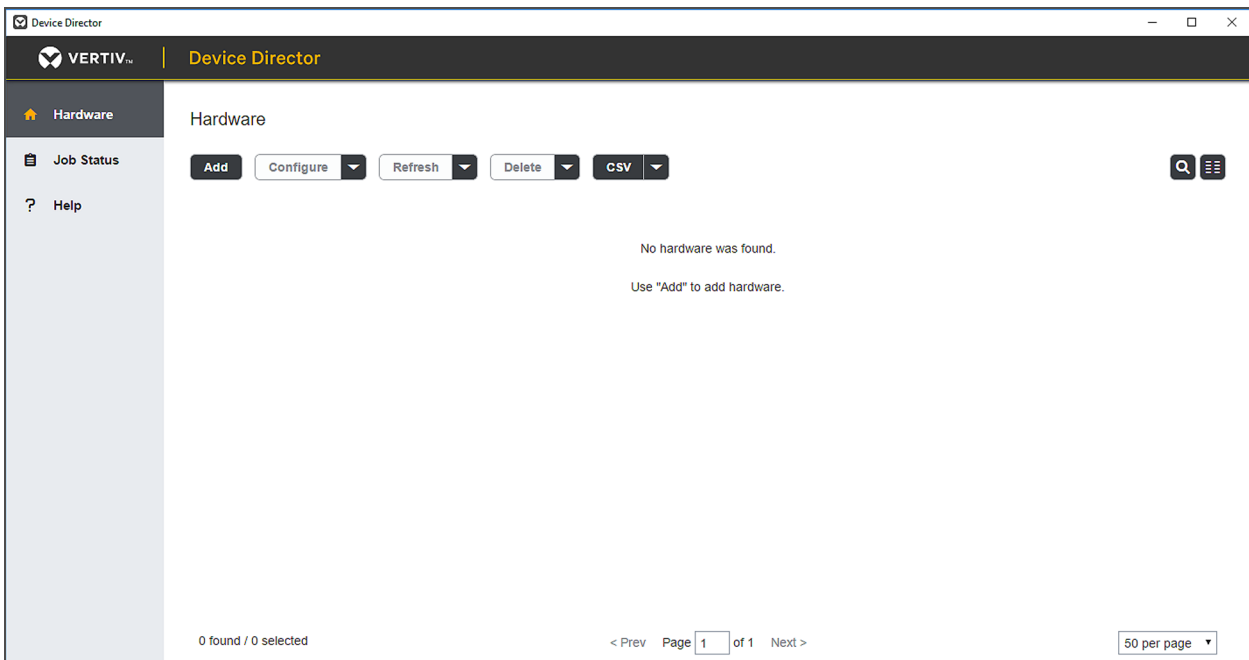
When Device Director software is installed, click the icon in the Start menu or the desktop icon to start the software. As the software is starting, the following screen displays progress updates.

Figure 1.3 Start up Screen



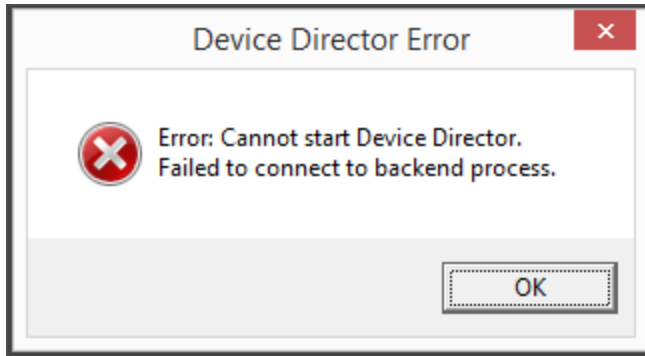
After the start up, the home screen is displayed.

Figure 1.4 Home Page



Occasionally, the software's back-end start-up process does not start fast enough due to other processing consuming substantial resources. When this occurs, you will see the following error.

Figure 1.5 Start-up Error



If this error occurs, try restarting the software to resolve the issue. If that does not work, the firewall on the machine might be blocking access to port 9000, which is required for the Device Director software to function; if so, allowing access to this port should solve the problem. If the issue continues after trying these recommended solutions, contact Technical Support.

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2 HARDWARE PAGE

The hardware page displays all of the units in the software. You can search the content displayed in the table and change the columns to display different information. From this page, you can also add, update or delete hardware from the software.

Figure 2.1 Hardware page with Example Data

	Last Connect	MAC Address	IPv4 Address	Temp Units	SMTP Port	Firmware Version	Brand	System Label
<input checked="" type="checkbox"/>	✓	00:19:85:E4:19:0B	10.0.30.8			3.16.4	Geist	
<input checked="" type="checkbox"/>	✓	00:04:A3:53:42:93	10.0.30.10	Fahrenheit	25	3.3.3	Geist	WD100
<input type="checkbox"/>	✓	D8:80:39:74:96:91	10.0.30.15	Fahrenheit	465	3.3.3	Geist	WD15
<input type="checkbox"/>	✓	00:19:85:E4:23:3C	10.0.30.18			3.16.3	Geist	
<input type="checkbox"/>	✓	00:19:85:E4:C4:0B	10.0.30.20	Fahrenheit	25	5.2.3	Geist	RCM-V4-1
<input type="checkbox"/>	✓	00:19:85:E8:62:F9	10.0.30.21	Fahrenheit	25	5.2.3	Geist	GEIST R-SERIES PDU
<input type="checkbox"/>	✓	00:19:85:E8:62:48	10.0.30.22	Fahrenheit	25	5.2.3	Geist	GEIST R-SERIES PDU
<input type="checkbox"/>	✓	00:19:85:E8:4C:8D	10.0.30.23	Fahrenheit	25	5.2.3	Geist	RCM-V4-4
<input type="checkbox"/>	✓	00:19:85:E3:77:B7	10.0.30.25	Fahrenheit	25	5.2.3	Geist	RCU-V4-1
<input type="checkbox"/>	✓	00:19:85:E8:66:53	10.0.30.26	Fahrenheit	25	5.2.3	Geist	RCU-V4-2
<input type="checkbox"/>	✓	00:19:85:E8:5B:FC	10.0.30.28	Fahrenheit	25	5.2.3	Geist	RCU-V4-4
<input type="checkbox"/>	✓	00:1E:C0:B0:5E:2D	10.0.30.30	Fahrenheit	25	3.3.3	Geist	IMD1
<input type="checkbox"/>	✓	D8:80:39:74:93:25	10.0.30.32	Fahrenheit	25	3.3.4	Vertiv	IMD3
<input type="checkbox"/>	✓	D8:80:39:74:93:47	10.0.30.33	Fahrenheit	25	3.3.4	Vertiv	IMD4
<input type="checkbox"/>	✓	D8:80:39:74:A4:D7	10.0.30.34	Fahrenheit	25	3.3.4	Vertiv	IMD5

2.1 Search

Devices on the Hardware page can be searched by any combination of criteria. You can search by clicking the search button. When search results are displayed, the search icon is orange, indicating there are active search results.

All search criteria can be cleared by clicking *Reset* in the search dialog box. When all criteria is reset, clicking *Search* restores the view and the search button returns to normal.

Figure 2.2 Search Dialog Box

Search Reset

Last Connect ▼ Failed ▼ ✖

Firmware Version ▼ < ▼ 3.2.0 ✖

+ Add Criteria

Cancel Search

2.2 Pagination

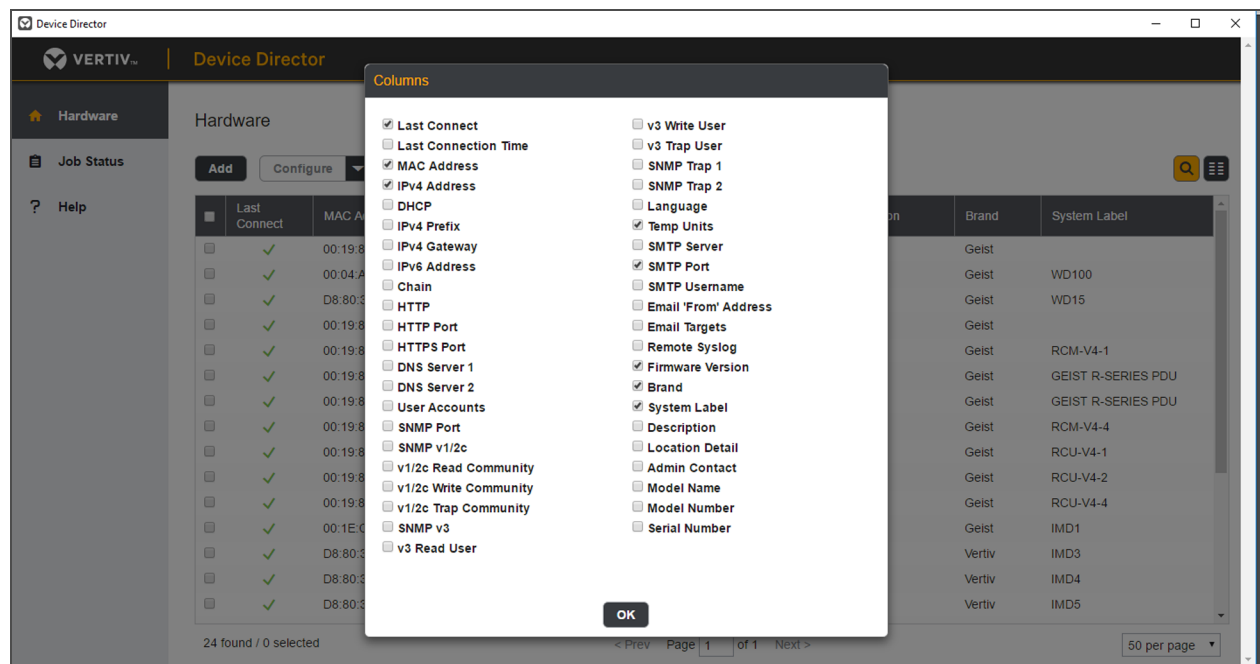
Item and page counts for the table are displayed at the bottom of the screen. The number of items displayed per page can be changed.

NOTE: Selecting a large number of items to display per page, may cause slow performance.

2.3 Columns

Clicking the column icon next to the search icon opens a dialog to select which columns to show or hide.

Figure 2.3 Columns Dialog Box

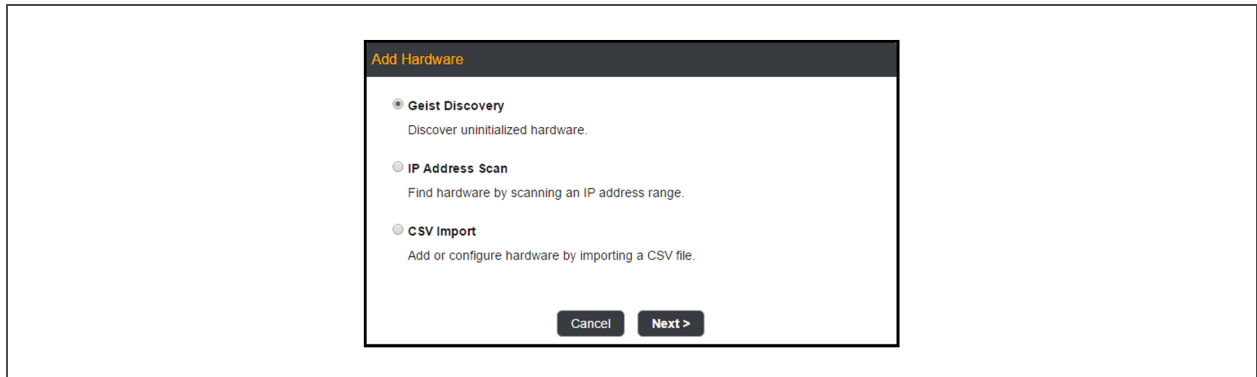


2.4 Add

There are three ways to add hardware in the software. You can add them by a discovery, IP address scan or CSV import.

- Geist Discovery: Used to discover uninitialized Geist hardware, usually with the intent of commissioning it, using a proprietary protocol.
- IP Address Scan: Used to find hardware that has been assigned a valid IPv4 address (manually or via DHCP), that may or may not be fully commissioned. Any hardware that is found can be added to the software for management.
- CSV Import: Used to add or update hardware using information from a spreadsheet. A CSV import template can be obtained by exporting the current list of hardware (an empty template is exported if no hardware is in the Device Director software).

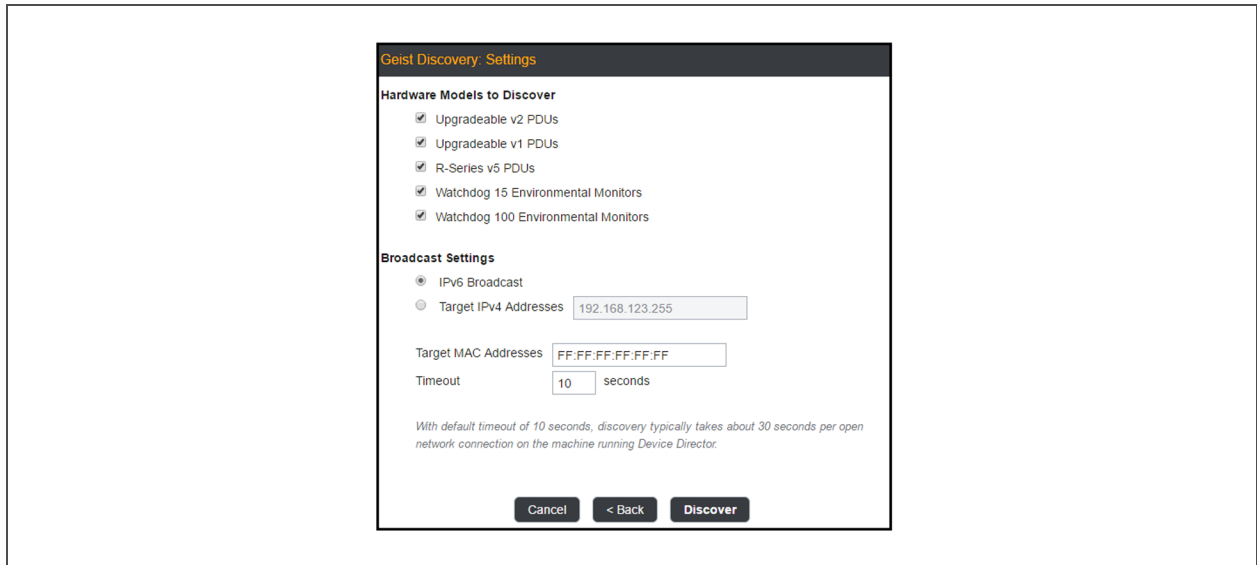
Figure 2.4 Add Hardware Prompt: Choose how to add hardware



To add hardware using Geist Discovery:

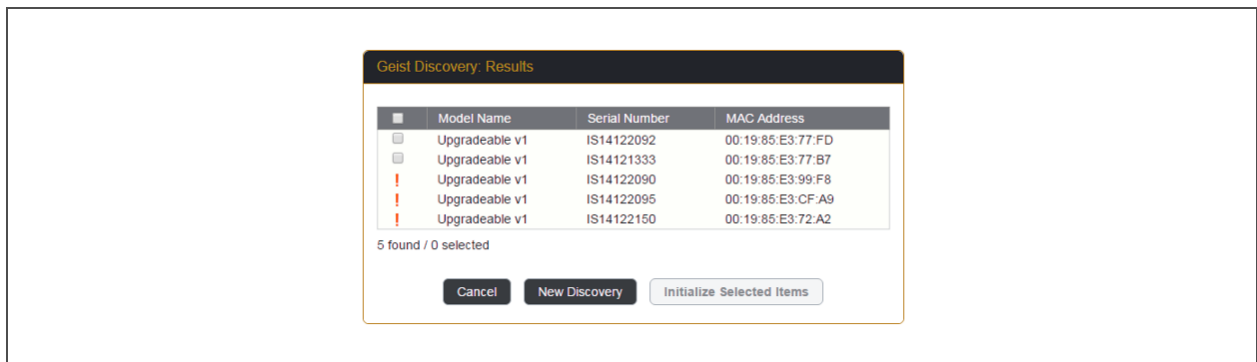
1. On the Hardware Page, click *Add*.
2. Select the radio button for Geist Discovery and click *Next*.
3. For the Hardware Models to Discover, select the type of hardware to be discovered.
4. Select how the discovery broadcast will be issued. Only one network card should be enabled on the machine running the software when the broadcast is made. Switches within the network must be configured to allow broadcasts through.
 - IPv6 Multicast: Allows the broadcast to be made without having to set the machine running the Device Director software to be on the same IPv4 subnet as the hardware to be discovered. This option requires the network card of the machine running the software to be enabled for IPv6 and configured for DNS.
 - Target IPv4 Addresses: This must be set to the subnet broadcast of the hardware to discover (typically 192.168.123.255 for factory default hardware). The machine running the software must also be assigned an IPv4 address on this subnet.
 - Target MAC Addresses: One MAC address or a comma-separated list of MAC Addresses to be targeted by the discovery. This field may be used to limit which hardware units respond to the broadcast.
 - Timeout: Sets how long to wait for responses after the broadcast is made.

Figure 2.5 Geist Discovery Tool



5. Click *Discover*. Units displayed with an exclamation point instead of a checkbox cannot be initialized using the Device Director software. These units are in a state that requires a full factory reset. Possible hardware states are illustrated in the following image.
 - Row 1 - no admin exists, DHCP on but no lease.
 - Row 2 - no admin exists, DHCP off, static IP is factory default.
 - Row 3 - admin exists, DHCP on but no lease.
 - Row 4 - admin exists, DHCP off, static IP is factory default.
 - Row 5 - admin exists, DHCP off, no static IPs.

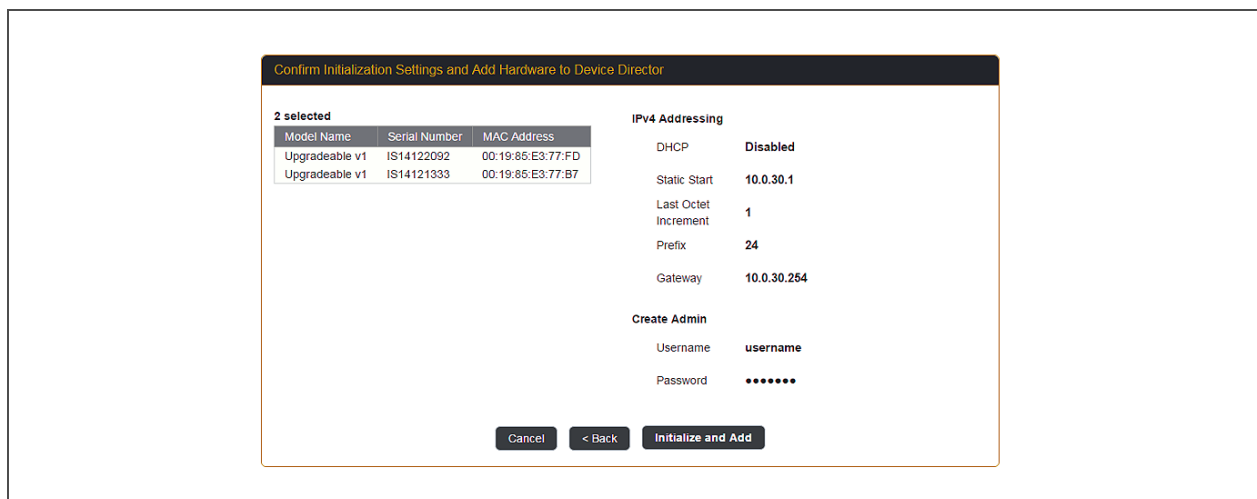
Figure 2.6 Example of Geist Discovery Tool Results List



6. Select the hardware items to initialize and click *Initialize Selected Items*.
 7. Select the radio button to use DHCP to assign the IPv4 addresses .
- or-
- Select the radio button to Assign static IPv4 addresses.

- a. Start: Enter the first IP address in the range of addresses to use for assigning to discovered hardware units.
 - b. Increment: Calculates the next IP address to assign, from the start address and each subsequent address until units are all addressed or the address space is exhausted (for example, increment 1 indicates normal integer counting, increment 2 indicates skipping every other address).
 - c. Prefix: The IP addressing prefix to set on the hardware, using CIDR notation (for example, a prefix of 24 is equivalent to a subnet mask of 255.255.255.0).
 - d. Gateway: The default network gateway to set on the hardware.
8. Click *Next*.
 9. Create the admin account and click *Next*.
 - a. Username: Enter the username of the admin account to be set. Username must start with a letter and contain only letters and numbers (no hyphen, underscore, space or other special characters are allowed).
 - b. Password: Enter the password of the admin account.
 - c. Verify Password: Re-enter the password of the admin account.
 10. Verify the settings are correct and click *Initialize and Add*. If Geist Discovery was originally done via IPv4 broadcast to a subnet that is different from the subnet of the new IPv4 addresses being assigned to the hardware, the software will likely lose contact with the hardware once the new IPv4 addresses are set on the hardware. If this happens, Device Director is unable to create an admin account on the hardware and the initialization will appear to have failed. The process must be completed by reconfiguring the machine running the Device Director software to have network access to the subnet of the newly assigned IPv4 addresses, finding the newly addressed hardware by an IPv4 address scan and then adding the found hardware to Device Director.

Figure 2.7 Confirm Initialization Settings Screen



To add hardware using IPv4 Address Scan:

1. On the Hardware Page, click *Add*.
2. Select the radio button for IPv4 Address Scan and click *Next*.
3. Enter the scan settings and click *Scan*.
 - a. Target IPv4 Addresses: Enter a comma separated list with no spaces (for example, 10.0.0.2,10.0.0.3 or a range of IP addresses 10.0.0.2-10.0.0.254).
 - b. Admin Credentials: Enter the admin username and password used to log into a hardware unit expected to be found in the given IP address range.
 - c. Advanced Settings: Enter the connection settings Device Director will use to communicate with hardware found in the IP address range being scanned. If the hardware to be found has settings that differ from these defaults, the appropriate connection settings must be entered here in order for the scan to succeed.

Network Protocol: the protocol (HTTP or HTTPS) to use for communicating with hardware units in the given IP address range.

HTTP Port: If HTTP is selected, the HTTP port to use for communicating with hardware units in the given IP address range.

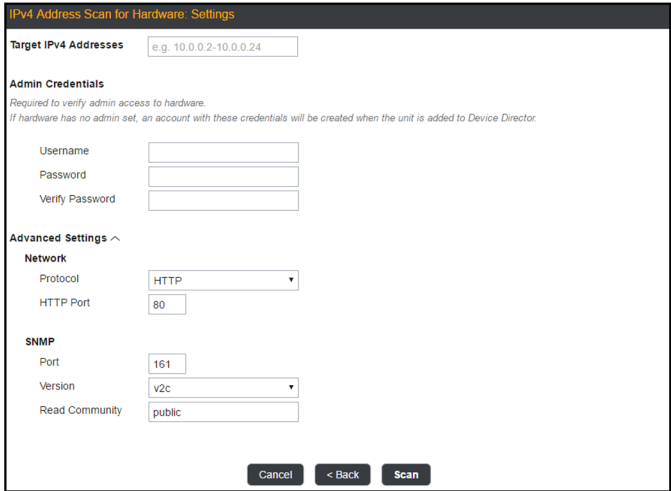
HTTPS Port: If HTTPS is selected, the HTTPS port to use for communicating with hardware units in the given IP address range.

SNMP Port: the SNMP port to use for communicating with hardware units in the given IP address range.

SNMP Version: the SNMP version to use for communicating with hardware units in the given IP address range.

Read Community: the read community string expected to be on the hardware units in the given IP address range.

Figure 2.8 IPv4 Address Scan for Hardware



4. Select the hardware items to add and click *Add Selected Items*. Hardware added to the software that does not have an admin account set will be updated with an admin account matching the IP Address Scan search criteria so it can be properly administered.

To manually add a device:

Using either Geist Discovery or IP Address Scan and enter the specific search IP Address or MAC Address on the search settings page. If the hardware unit is found according to the settings entered, it can be added to the software.

2.5 Configure

Configure is used to update hardware settings, either individually or in bulk. The Configure wizard separates updates into choosing what to change and changing the values. This is done to make clear what is being changed and to avoid the ambiguity of leaving a field empty for bulk updates. If a setting is selected for editing, it will be updated. Likewise, if a field is not selected for editing, it will not be updated. If a text field is selected for editing and its value is left blank, that field will be set to blank on all selected hardware. Boolean, integer and enumerated fields that are selected for editing must have a valid value set. To leave a field unchanged, do not select that field for editing.

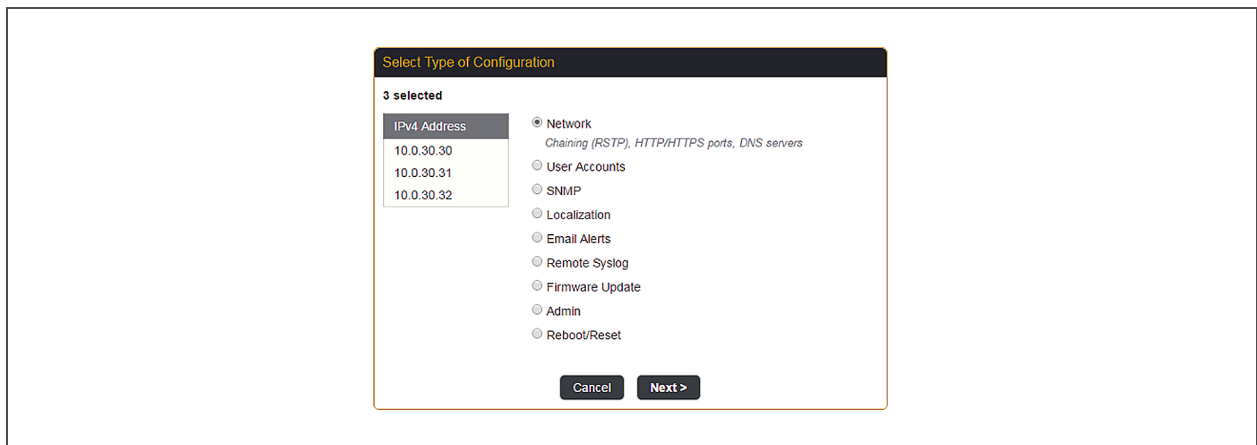
2.5.1 Network configuration

To configure Network devices:

1. From the Hardware page, select the checkboxes next to the hardware desired.
2. Click the Configure drop-down and select *Configure Selected*.
3. Select the radio button for Network and click *Next*.

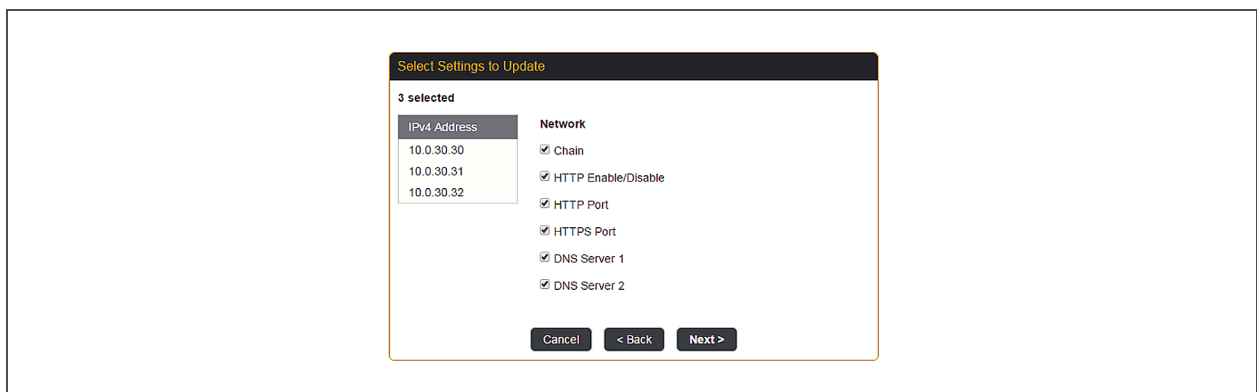
- a. Network: Configure chaining (for RSTP), HTTP/HTTPS ports, and DNS servers. If only one hardware unit is selected, there is also the option to edit its IPv4 address under network settings. To batch-edit the IPv4 addresses of multiple hardware units, CSV import is recommended.
- b. User Accounts: Add, edit, or delete user accounts.
- c. SNMP: Configure SNMP port, security settings, and trap targets.
- d. Localization: Configure language and temperature units.
- e. Email Alerts: Configure SMTP settings and targets for email alerts.
- f. Remote Syslog: Configure remote syslog.
- g. Firmware Update: Update firmware on the hardware.
- h. Admin: Edit system label, description, location, and admin contact.
- i. Reboot/Reset: Reboot or restore factory settings on the hardware.

Figure 2.9 Type of Configuration



4. Select the Network settings to edit.

Figure 2.10 Network Settings to Update



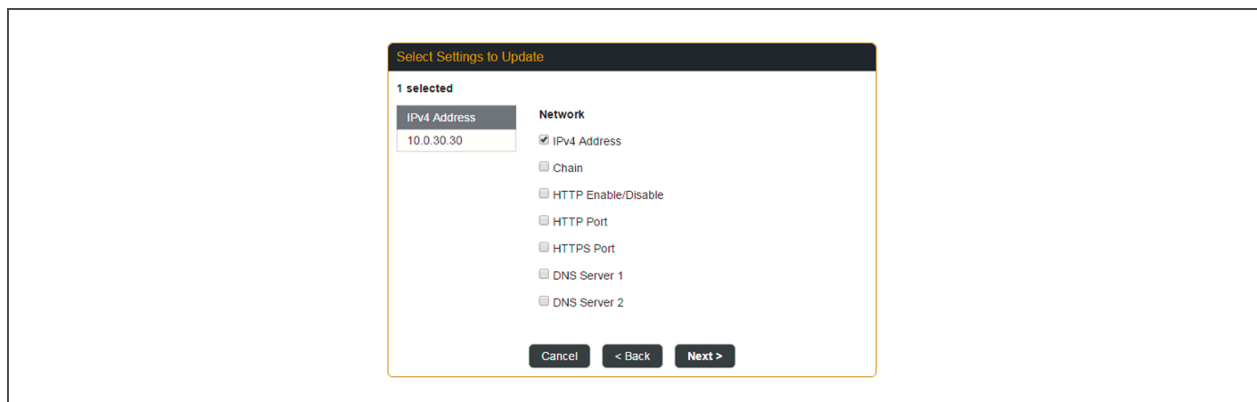
5. Edit Network Settings and click *Next*.

- a. Chain: Assigns hardware to a particular network daisy chain. This setting is intended for networks using RSTP, in which units linked in the same network daisy chain can only be updated one at a time.
- b. HTTP Enable/Disable: Enable/disable HTTP on the hardware.
- c. HTTP Port: HTTP Port to use on the hardware.
- d. HTTPS Port: HTTPS Port to use on the hardware.
- e. DNS Server 1: Primary DNS server the hardware uses.
- f. DNS Server 2: Secondary DNS server the hardware uses.

NOTE: If only one hardware unit has been selected, there is also the option to edit its IPv4 address under network settings.

6. Select which Settings to Update (IPv4 address selectable to edit if only 1 item selected) and click *Next*.

Figure 2.11 Settings to Update



7. Edit Network Settings (IPv4 address editable if only 1 item selected) and click *Next*. If switching between DHCP and static IPv4 addressing, the system will use IPv6 to maintain a connection with the hardware while the switch is made. Note that this requires the network card of the machine running Device Director to be enabled for IPv6.

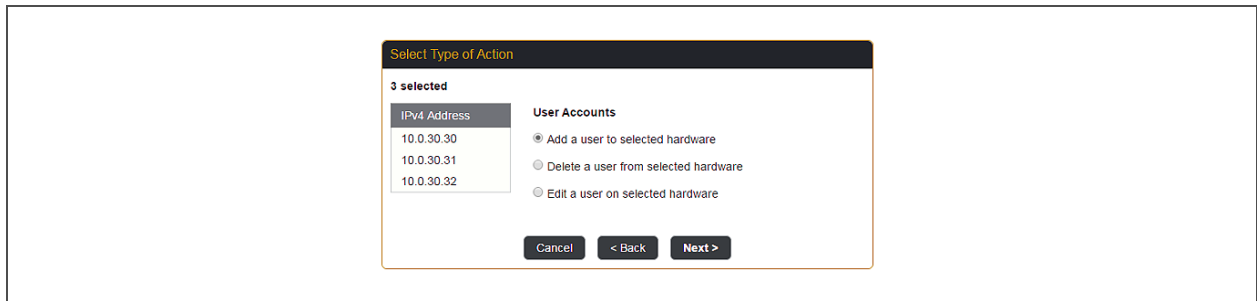
NOTE: In order to batch-edit the IPv4 addresses of multiple items, CSV import is recommended.

2.5.2 User accounts

To add a user account:

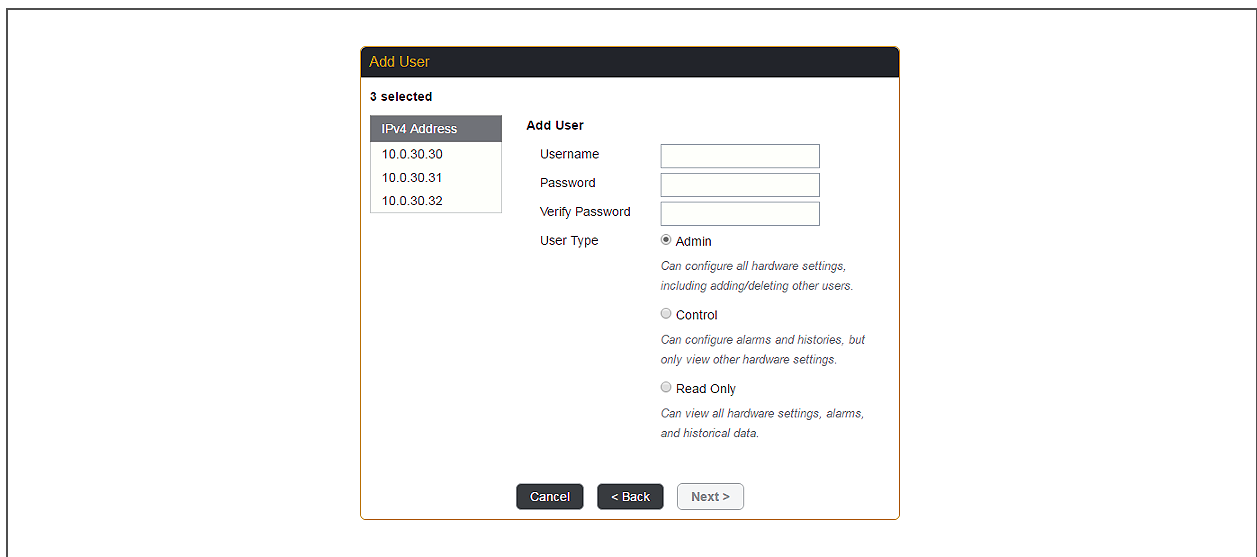
1. From the Hardware page, select the checkboxes next to the hardware desired.
2. Click the Configure drop-down and select *Configure Selected*.
3. Select the radio button for User Accounts and click *Next*.
4. Select the radio button to Add a user and click *Next*.

Figure 2.12 User Accounts



5. Add user account and click *Next*. If the username entered already exists on a selected hardware unit, the add job will fail for that unit
 - a. Username: Enter the username of user account to add. The username can contain only letters and numbers (no spaces, dashes, or any other special characters), and the first character must be a letter.
 - b. Password: Enter the password of user account to add.
 - c. Verify Password: Re-enter the password of the user account. This ensures the password is entered as intended.
 - d. User Type: Select the radio button for the type of user account to add

Figure 2.13 Add User Account



To delete a user account:

1. From the Hardware page, select the checkboxes next to the hardware desired.
2. Click the Configure drop-down and select *Configure Selected*.
3. Select the radio button for User Accounts and click *Next*.
4. Select the radio button to Delete a user from selected hardware and click *Next*.

5. Enter the username of the user account to delete from the hardware and click *Next*. If the username does not exist on the hardware, the job fails.

To edit a user account:

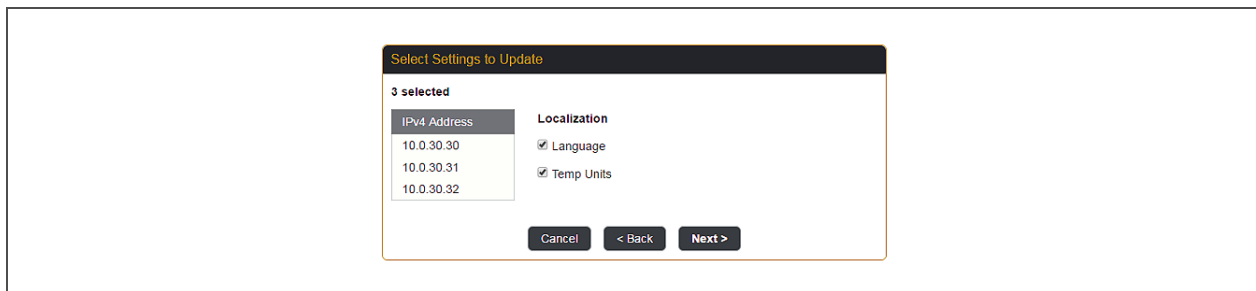
1. From the Hardware page, select the checkboxes next to the hardware desired.
2. Click the Configure drop-down and select *Configure Selected*.
3. Select the radio button for User Accounts and click *Next*.
4. Select the radio button to Edit a user from selected hardware and click *Next*.
5. Enter the username of the user account to edit from the hardware and click *Next*.
6. Select the account settings to edit and click *Next*. If the username does not exist on the hardware, the job fails.
 - a. Password: Enter a new password for user account.
 - b. Verify Password: Re-enter the password to ensure the password is entered as intended.
 - c. User Type: Select the new type of user account.
 - d. Account Enable/Disable: Enable or disable the user account.

2.5.3 Localization

To edit localization for the devices:

1. From the Hardware page, select the checkboxes next to the hardware desired.
2. Click the Configure drop-down and select *Configure Selected*.
3. Select the radio button for Localization and click *Next*.
4. Select the settings to edit and click *Next*.

Figure 2.14 Localization Settings



5. Edit the settings and click *Next*.
 - a. Language: Select the language to display on the hardware interface.
 - b. Temp Units: Select the temperature units to display on the hardware interface.

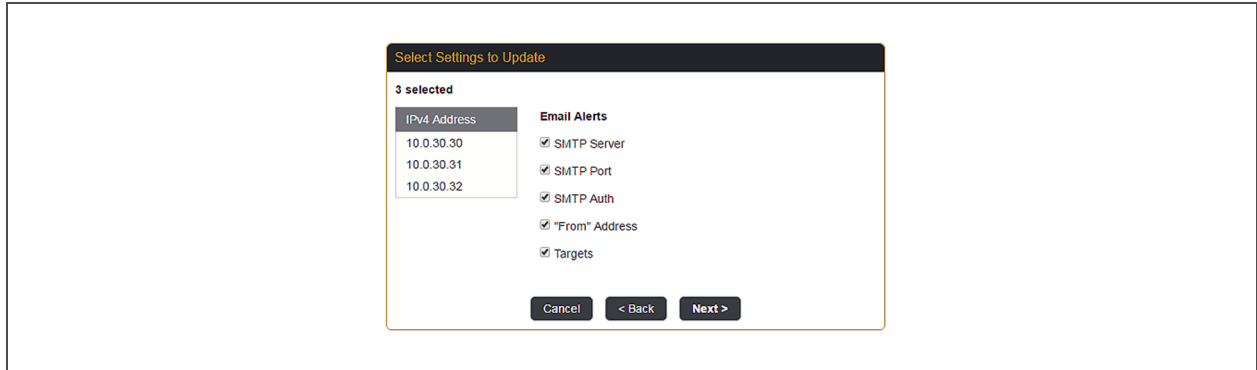
2.5.4 Email alerts

To edit email alerts for the devices:

1. From the Hardware page, select the checkboxes next to the hardware desired.

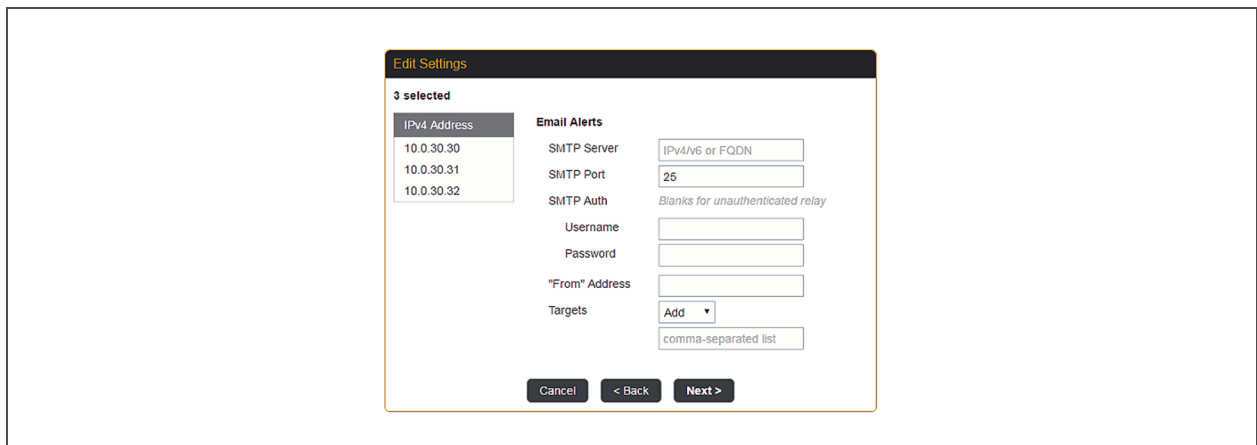
2. Click the Configure drop-down and select *Configure Selected*.
3. Select the radio button for Email Alerts and click *Next*.
4. Select the settings to edit and click *Next*.

Figure 2.15 Email Alerts Settings



5. Edit the Email Alerts settings and click *Next*.
 - a. SMTP Server: IPv4/v6 address or FQDN of the email server for the hardware to use.
 - b. SMTP Port: The port on the email server port for hardware to use.
 - c. SMTP Auth Username: The username to log into email server (leave blank if not required).
 - d. SMTP Auth Password: The password to log into email server (leave blank if not required).
 - e. "From" Address: The email address that alerts are to be shown as sent from.
 - f. Targets: A comma-separated list of destination email address(es) to add or delete from hardware.

Figure 2.16 Email Alerts



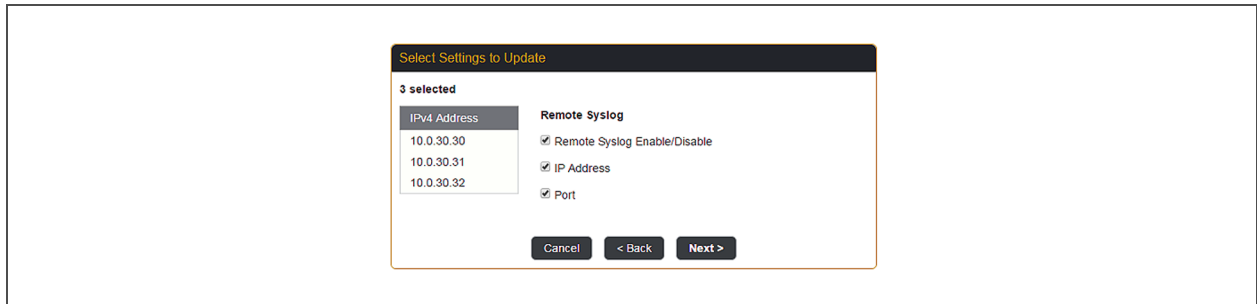
2.5.5 Remote syslog

To edit the remote syslog:

1. From the Hardware page, select the checkboxes next to the hardware desired.

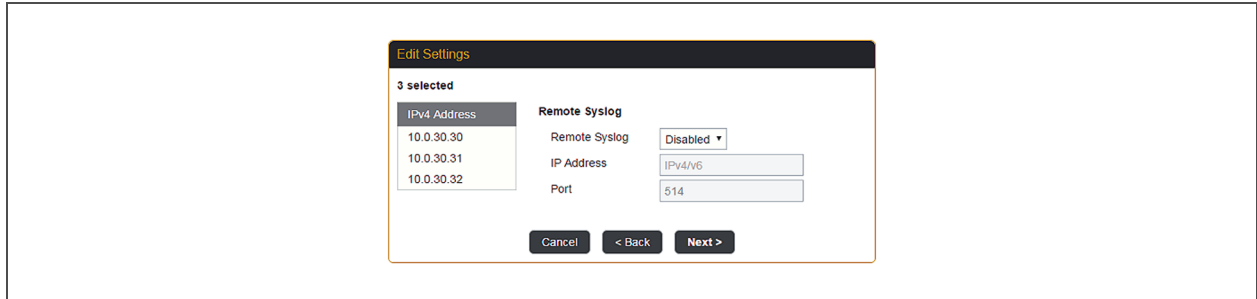
2. Click the Configure drop-down and select *Configure Selected*.
3. Select the radio button for Remote Syslog and click *Next*.
4. Select the settings to edit and click *Next*.

Figure 2.17 Remote Syslog Settings Options



5. Edit the Remote Syslog settings and click *Next*.
 - a. Remote Syslog Enable/Disable: Enable/disable copying local hardware syslog to a remote location.
 - b. IP Address: IPv4/IPv6 address of remote syslog.
 - c. Port: The port to use for remote syslog.

Figure 2.18 Remote Syslog



2.5.6 Firmware update

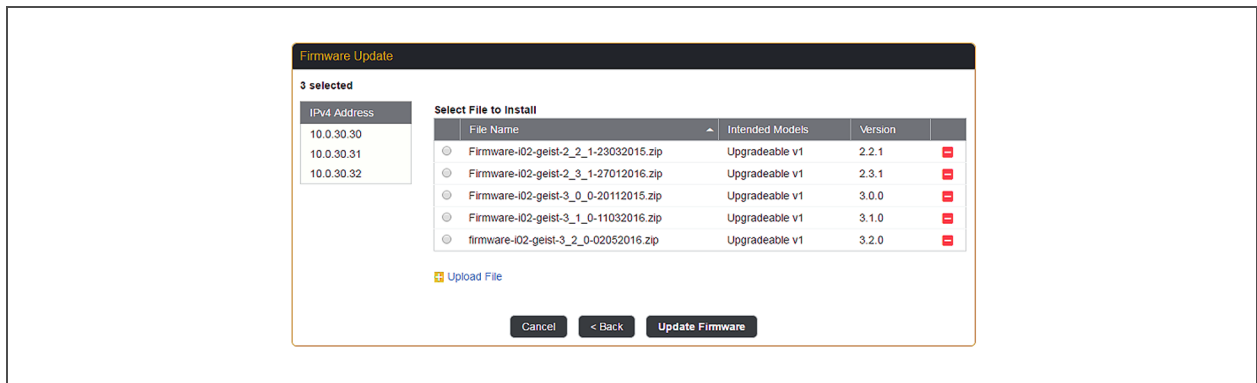
To update the firmware:

1. From the Hardware page, select the checkboxes next to the hardware desired.
2. Click the Configure drop-down and select *Configure Selected*.
3. Select the radio button for Firmware Update and click *Next*.
4. Select the file to install and click *Update Firmware*.

-or-

Select *Upload file* to upload a firmware file.

Figure 2.19 Firmware Update

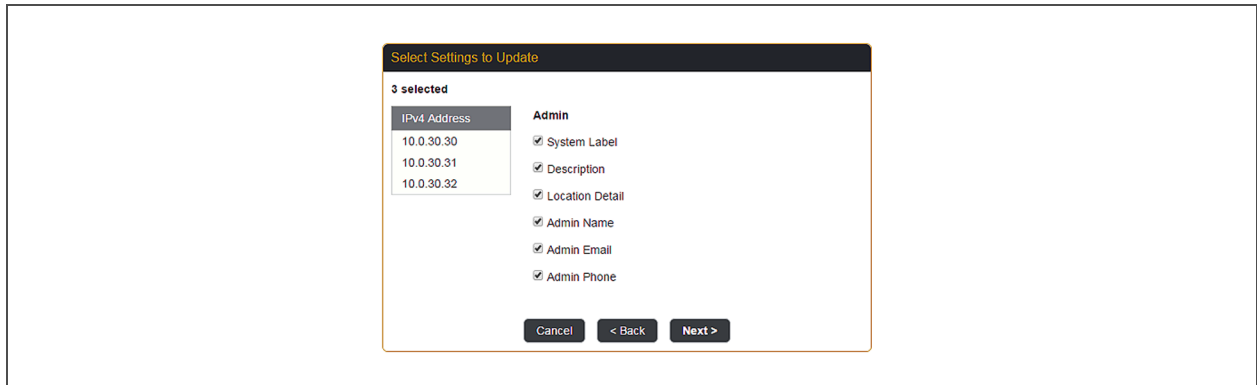


2.5.7 Admin

To configure admin information:

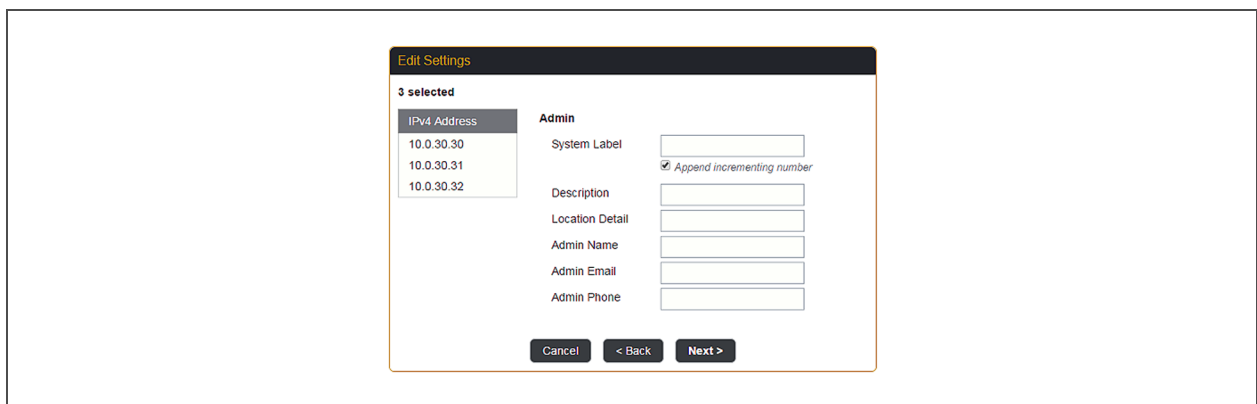
1. From the Hardware page, select the checkboxes next to the hardware desired.
2. Click the Configure drop-down and select *Configure Selected*.
3. Select the radio button for Admin and click *Next*.
4. Select the settings to edit and click *Next*.

Figure 2.20 Admin Settings Options



5. Configure the Admin Settings and click *Next*.
 - a. System Label: Free-text label for the hardware. Can be used as friendly name to help identify the hardware. Append incrementing number: This option appears if two or more items have been selected. If checked, the text entered in the System Label field will be suffixed with a number, starting with 1 and incremented by 1, for each item selected. This provides a quick way to assign unique System Labels to many items at once.
 - b. Description: Free-text description of the hardware.
 - c. Location Detail: Free-text location details of the hardware.
 - d. Administrator Name: Contact info for the administrator of the hardware.
 - e. Administrator Email: Contact info for the administrator of the hardware.
 - f. Administrator Phone: Contact info for the administrator of the hardware.

Figure 2.21 Edit Settings



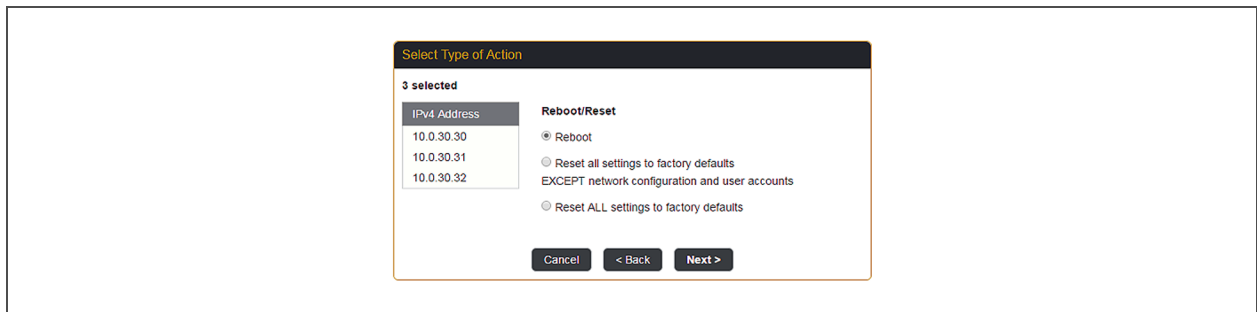
2.5.8 Reboot/Reset

To reboot or reset devices:

1. From the Hardware page, select the checkboxes next to the hardware desired.
2. Click the Configure drop-down and select *Configure Selected*.
3. Select the radio button for Reboot/Reset and click *Next*.

4. Select the radio button for the desired Reboot/Reset option and click *Next*.
 - a. Reboot: Reboots the hardware.
 - b. Reset all settings to factory defaults EXCEPT network configuration and user accounts: Restores factory default hardware configuration except for network settings (for example, IPv4 address) and user accounts. Occasionally, if the hardware takes longer than expected to finish this type of reset, the information stored in Device Director may fall out of sync with the actual hardware. It is recommended to Refresh hardware in the software after this type of reset appears to be completed.
 - c. Reset ALL settings to factory defaults: restore full factory default hardware configuration. This also deletes the hardware from the Device Director software, since this returns the hardware to its uninitialized state.

Figure 2.22 Reboot/Reset Options



2.5.9 Refresh

Refresh scans current settings on actual hardware and refreshes information stored in the software accordingly.

2.5.10 Delete

Delete removes hardware from the Device Director software. If the hardware remains online, it can be found again and re-added.

2.6 CVS Import/Export

The CSV import may be used both to add hardware to the Device Director software and to update hardware already in the software. While it is possible to add some hardware and update other hardware in a single CSV import, it is recommended to do adds and updates with separate CSV files for manageability. CSV export may be used to generate a template file that can simply be edited for import. An empty template is exported if no hardware has been added to the software yet. Important considerations for CSV import:

- A device record is added or updated in the software for each row of the CSV file.
- Missing device records (rows) in the imported file have no effect. Hardware known to the software will neither be deleted nor updated if it is missing from the CSV import. This allows for partial updates of only relevant hardware.

- Column headers present in the import file must exactly match the CSV template column names and must not appear more than once in the same file.

2.6.1 Adding Hardware with CSV Import

If a CSV row contains a MAC Address that is new to the software, or if the MAC Address is blank and the IPv4 Address is new to the software, the system will attempt to contact and add the hardware. To add hardware to the Device Director software, the CSV row must include at minimum an IPv4 address and valid admin credentials in the User Accounts column. The following defaults are used to try to contact the hardware:

- HTTP Port: 80
- Protocol to Use: HTTP
- SNMP Port: 161
- SNMP Version: v2c
- v2c Read Community: public

If the hardware has settings that differ from these defaults, the appropriate connection settings must be included in the CSV import in order for the job to succeed. Any additional settings that may be specified in the CSV row are ignored in an add.

2.6.2 Updating Hardware with CSV Import

If a CSV row contains a MAC Address that is known to the software, the system attempts to update the hardware as specified in the CSV. When updating hardware, the MAC Address is the only required field; any other fields (columns) included in the CSV are read as intended updates.

- Text fields may be blank, in which case the empty value is treated as the desired value. Boolean, integer and enumerated fields will be ignored if empty.
- Password fields that contain only * characters are ignored.
- Missing columns in the imported file have no effect. Hardware fields are not updated with a blank value if a column is missing. This allows for partial updates of only particular fields of interest.
- Extra columns in the import file that are unknown to Device Director will be ignored.

2.6.3 CSV Fields (Columns)

See the user manual for a specific hardware model for more information on fields and their values.

- MAC Address : considered the unique identifier for correlating each CSV row to a hardware unit known to Device Director or for adding a new hardware unit if not already known.
- IPv4 Address: IPv4 address set on the hardware.
- DHCP Enabled: valid values are "TRUE" or "FALSE". If "FALSE", the IPv4 Address is static.

- If switching between DHCP and static IPv4 addressing, the system will use IPv6 to maintain a connection with the hardware while the switch is made. Note that this requires the network card of the machine running Device Director to be enabled for IPv6.
- IPv4 Prefix: CIDR network prefix set on the hardware.
- IPv4 Gateway: IPv4 network gateway set on the hardware.
- *IPv6 Address: IPv6 address of the hardware.
- Chain: assigns hardware to a particular network daisy chain (leave blank if not required). This setting is intended for networks using RSTP, in which units linked in the same network daisy chain can only be updated one at a time.
- HTTP Enabled: valid values are "TRUE" or "FALSE".
- HTTP Port: what HTTP port the hardware is set to use.
- HTTPS Port: what HTTPS port the hardware is set to use.
- Protocol to Use: what protocol Device Director will use when connecting to the hardware. Valid values are "HTTP" or "HTTPS".
- DNS Server 1: IPv4 address of the primary DNS Server that the hardware will use.
- DNS Server 2: IPv4 address of the secondary DNS Server that the hardware will use.
- User Accounts: user accounts on the hardware. Format of this field is Username;Password;IsEnabled;IsAdmin;IsControl. Users are separated by "&". Passwords are imported if included, but export shows ***** for security reasons.
 - When adding hardware to Device Director by CSV import, this field only needs to contain Username;Password;;; for one admin account on the hardware. This is required to verify admin access to the hardware. If the hardware does not yet have an admin set, an admin account with these credentials will be created.
 - When updating hardware already in Device Director by CSV import, the contents of this field fully "replaces" the accounts set on the hardware. E.g., to delete a user account on the hardware, all accounts except the one to delete should be listed in this field. To add a user account to the hardware, all existing accounts should be listed in this field, plus the account to add.
 - When exporting a CSV from Device Director, all existing user accounts on the hardware are exported in this field.
- SNMP Port: the SNMP port on the hardware.
- SNMP Version: the SNMP version for Device Director to use when connecting to the hardware. Valid values are "V1", "V2C", or "V3".
- SNMP v1v2c Enabled: valid values are "TRUE" or "FALSE".
 - For Geist Upgradeable v1 PDUs and Watchdog 15/100 environmental monitors, firmware versions 3.1.0 and earlier do not support enabling/disabling SNMP v1/2c and SNMP v3 independently of each other. For hardware still running this older firmware, all versions of SNMP must be enabled/disabled together, or else the job will fail.
- v1v2c Read Community: SNMP v1/2c read community string set on the hardware.

- v1v2c Write Community: SNMP v1/2c write community string set on the hardware.
- v1v2c Trap Community: SNMP v1/2c trap community string set on the hardware.
- SNMP v3 Enabled: valid values are "TRUE" or "FALSE".
 - For Geist Upgradeable v1 PDUs and Watchdog 15/100 environmental monitors, firmware versions 3.1.0 and earlier do not support enabling/disabling SNMP v1/2c and SNMP v3 independently of each other. For hardware still running this older firmware, all versions of SNMP must be enabled/disabled together, or else the job will fail.
- v3 Read User: the SNMP v3 read user account set on the hardware. Format of this field is Username;AuthProtocol;AuthPassword;PrivacyProtocol;PrivacyPassword. Passwords are imported if included but export shows ***** for security reasons. AuthProtocol may be "NONE", "MD5" or "SHA1". If AuthProtocol is not "NONE", AuthPassword and PrivacyProtocol are required. PrivacyProtocol may be "NONE", "AES128" or "DES". If PrivacyProtocol is not "NONE", PrivacyPassword is required.
- v3 Write User: the SNMP v3 write user account set on the hardware. Format of this field is Username;AuthProtocol;AuthPassword;PrivacyProtocol;PrivacyPassword. Passwords are imported if included but export shows ***** for security reasons. AuthProtocol may be "NONE", "MD5" or "SHA1". If AuthProtocol is not "NONE", AuthPassword and PrivacyProtocol are required. PrivacyProtocol may be "NONE", "AES128" or "DES". If PrivacyProtocol is not "NONE", PrivacyPassword is required.
- v3 Trap User: the SNMP v3 trap user account set on the hardware. Format of this field is Username;AuthProtocol;AuthPassword;PrivacyProtocol;PrivacyPassword. Passwords are imported if included but export shows ***** for security reasons. AuthProtocol may be "NONE", "MD5" or "SHA1". If AuthProtocol is not "NONE", AuthPassword and PrivacyProtocol are required. PrivacyProtocol may be "NONE", "AES128" or "DES". If PrivacyProtocol is not "NONE", PrivacyPassword is required.
- SNMP Trap Target 1: primary SNMP trap target set on the hardware. Format of this field is IpAddress;Version. If IPAddress is set, Version is required. Version may be "V1", "V2C" or "V3".
- SNMP Trap Target 2: secondary SNMP trap target set on the hardware. Format of this field is IpAddress;Version. If IPAddress is set, Version is required. Version may be "V1", "V2C" or "V3".
- Language: the system language set on the hardware. Language uses the ISO language Code and may be "de", "en", "es", "fr", "ja", "ko", "pt", "ru" or "zh".
- Temp Units: the temperature units set on the hardware. Valid values are "Fahrenheit" or "Celsius".
- SMTP Server: IPv4/v6 or FQDN of SMTP server through which the hardware is to send email.
- SMTP Port: TCP port to use on the SMTP server.
- SMTP Username: username for logging into SMTP server (leave blank if not required).
- SMTP Password: password for logging into SMTP server (leave blank if not required). Passwords are imported if included but export shows ***** for security reasons.
- Email From Address: email address that alerts from the hardware are to be shown as sent from.

- Email Targets: comma-separated list of destination email addresses to which hardware will send alerts.
 - When updating hardware by CSV import, the contents of this field fully "replaces" the list of email targets set on the hardware. E.g., to delete a target on the hardware, all targets except the one to delete should be listed in this field. To add a target, all existing targets should be listed in this field, plus the target to add.
- Remote Syslog Enabled: valid values are "TRUE" or "FALSE".
- Remote Syslog IP Address: the remote syslog IP address set on the hardware.
- Remote Syslog Port: the remote syslog port set on the hardware.
- *Firmware Version: version of firmware running on the hardware.
- System Label: free-text label for the hardware. Can be used as a friendly name to help identify the hardware.
- Description: free-text description of the hardware.
- Location Detail: free-text location details of the hardware. Typically a low-level detail of where the hardware is located (e.g. a floorplan grid or internal identifier).
- Admin Name: contact info for the administrator of the hardware.
- Admin Email: contact info for the administrator of the hardware.
- Admin Phone: contact info for the administrator of the hardware.
- *Model Name: commonly used description of the hardware model.
- *Model Number: factory designation for the exact specifications of the hardware.
- *Serial Number: serial number of the hardware.

* = Field is considered read-only and exported for informational purposes. On CSV import, this field may be updated to something other than what is defined in the import file if the hardware reports a different value.

3 JOB STATUS PAGE

The job status page lists all job batches pending, in progress, or completed by Device Director. Batches are queued and processed in chronological order, but they are displayed in reverse chronological order, with the most recently created batch listed first.

Only one batch is processed at a time, to prevent potentially conflicting updates contained in different batches from coinciding on any hardware unit.

- Pending batches are collapsed by default but can be expanded to show their details.
 - Cancel: Cancels the pending batch of jobs. The batch retains its place in the list but is marked as Canceled and can be cleared.
- If a batch is in progress, its details are expanded by default and updated as the batch progresses.
 - Terminate: Stops all in-progress jobs within the batch immediately and cancels any pending jobs within the batch.
 - Graceful Stop: Allows all in-progress jobs within the batch to complete and cancels any pending jobs within the batch.
- Completed batches are collapsed by default but can be expanded to show their details. Each completed batch is summarized by one of four labels:
 - Successful: All jobs in the batch were completed successfully.
 - Cancelled: All jobs in the batch were cancelled.
 - Failed: All jobs in the batch failed.
 - Complete: Some jobs in the batch succeeded, and some were either cancelled or failed. The number of cancellations and/or failures is shown in parentheses.
- Clear: Removes a completed batch from the Job Status page.

Figure 3.1 Job Status Page

Job Status

Firmware Update Cancel

2017-01-07 01:12:43 PM MST

Pending 0 / 3 ▾

Update Hardware Settings Terminate Graceful Stop

2016-12-29 02:04:31 PM MST

In Progress ... 0 / 3 ^

SNMP v1/2c = Enabled, v1/2c Read Community = public, v1/2c Write Community = private, v1/2c Trap Community = private

MAC Address	IPv4 Address	System Label	Model Name	Job Status	Message
00:19:85:E3:77:FD	10.0.30.1	PDU-01	Upgradeable v1	Successful	
00:19:85:E3:77:CC	10.0.30.2	PDU-02	Upgradeable v1	Successful	
00:19:85:EE:73:FD	10.0.30.3	PDU-03	Upgradeable v1	Successful	

Update Hardware Settings Clear

2016-09-25 01:51:23 PM MST

🚫 Complete (1 failed) 2 / 3 ^

Hide details

MAC Address	IPv4 Address	System Label	Model Name	Job Status	Message
00:19:85:E3:77:FD <small>Location Detail = Rack-01</small>	10.0.30.1	PDU-01	Upgradeable v1	Failed	Error establishing connection to hardware.
00:19:85:E3:77:CC <small>Location Detail = Rack-02</small>	10.0.30.2	PDU-02	Upgradeable v1	Successful	
00:19:85:EE:73:FD <small>Location Detail = Rack-03</small>	10.0.30.3	PDU-03	Upgradeable v1	Successful	

Add Hardware from GDP Clear

2016-09-25 12:03:05 PM MST

✅ Successful 3 / 3 ▾

Appendix A: Supported Products

The Device Director software may be used with Vertiv and Geist Rack Power Distribution Units (rPDUs) as well as Watchdog environmental monitors.

Table A.1 Supported Product Versions

PRODUCT	GEIST DISCOVERY	IMPORT BY IPV4 ADDRESS	FIRMWARE UPDATES	EDIT SETTINGS
Geist Upgradeable v2				
5.3.x and higher	X	X	X	X
Geist Upgradeable v1				
3.4.x and higher	X	X	X	X
2.1.x - 3.3.x		X	X	X
2.0.x		X	X	
R-Series v5				
5.2.x and higher	X	X	X	X
5.0.x - 5.1.x		X	X	X
R-Series v4				
4.3.x - 4.4.x		X	X	X
R-Series v3				
3.15.x - 3.16.x		X	X	
Watchdog 15/100				
3.4.0 and higher	x	X	X	X
3.0.x - 3.3.x		X	X	X
Watchdog 1000/1200/1250/1400				
3.15.x - 3.16.x		X	X	

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